

Serial No. 10/509,509

Docket No. MC1-7307

RECEIVED  
CENTRAL FAX CENTER

MAY 29 2007

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph on page 5, line 17, with the following amended paragraph.

"By providing a calibration load in the collection path of the collector, calibration data can be obtained every time the collector moves along the collection path. This means that the imager can be calibrated on a line-by-line basis. This is advantageous."

Please replace the paragraph on page 12, line 31, with the following amended paragraph.

In use of the apparatus of Figures 1 and 2, the mirror 14 is rotated about the axis 16 so that an area of the patient's body can be scanned. As shown in Figure 5, when the mirror 14 rotates, the collection path is swept through 360°, and so the scan line 12 is in the form of a circumference swept out by the path. In Figure 2, the lines 24 and 26 indicate a collection path along which millimetre wave electromagnetic radiation travels from a spot ~~[[25]]~~ 60 to be imaged by the apparatus to the mirror 14. Received radiation is reflected from the mirror 14 and passed through the isolator 28 and then travels through the focussing lens 40 and into the corrugated feedhorn 42.

Please replace the paragraph on page 17, line 30, with the following amended paragraph.

To perform calibration of the radiometer, it is preferable to use two thermal targets having temperatures above and below the range of temperatures expected in the real scene. To this end, one of the calibration loads 96 is a hot load and the other 98 is a cold load ~~[[46]]~~. Any suitable calibration loads could be used. For accurate radiometric calibration, it is desirable to have the thermal target filling the beam of the radiometer and a uniform, known temperature over that area. The temperature should be constant during the time taken to make the calibration. Preferred examples of the calibration loads are shown in Figure 17 to 19.